NOV 1 3 2003

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

Hiroyuki OKADA

Ogroup Art Unit: 2612

Application No.: 09/205,094

Filed: December 3, 1998

For: DIGITAL CAMERA

Ogroup Art Unit: 2612

Confirmation No.: 8215

SUBMISSION OF FORMAL DRAWINGS

Commissioner for Patents P.O. Box 1450

Alexandria, VA 22313-1450

Sir:

Enclosed please find twelve sheet(s) of formal drawings for review by the Patent and Trademark Office. Should the enclosed drawing(s) require changes, it is respectfully requested that the Patent and Trademark Office notify the undersigned of same.

Respectfully submitted,

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Date: November 13, 2003

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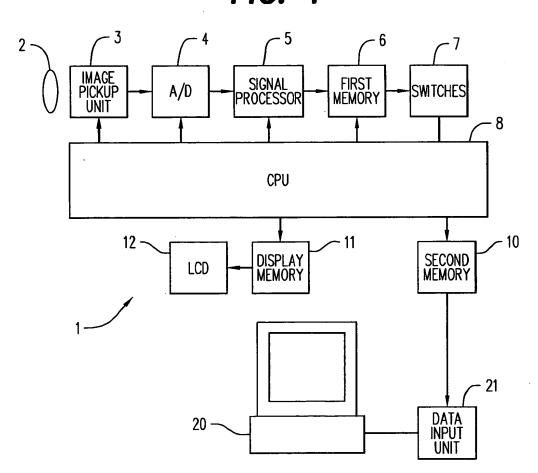
IGITAL CAMERA

INVENTAR(S): HIROYUKI OKADA APPLICATION SERIAL NO: 09/205,094





FIG. 1



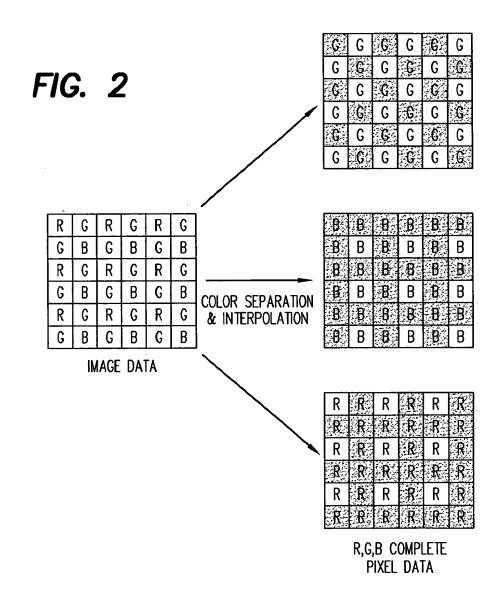
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GITAL CAMERA

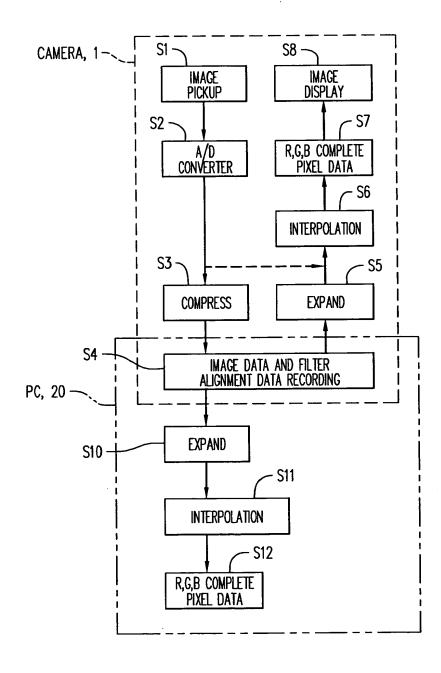
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FIG. 3

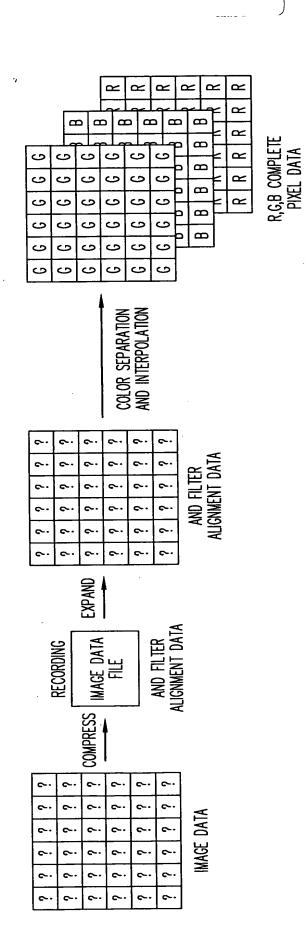


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GITAL CAMERA

INVENTA (S): HIROYUKI OKADA APPLICATION SERIAL NO: 09/205,094





FIG. 5a

	R	G	R	G	R	G			
I	G	В	G	В	G	В			
	R	G	R	G	R	G			
	G	В	G	В	G	В			
	R	G	R	G	R	G			
	G	В	G	В	G	В			
	TVDF 4								

TYPE - 1

FIG. 5b

В	G	В	G	В	G		
G	R	G	R	G	R		
В	G	В	G	В	G		
G	R	G	R	G	R		
В	G	В	G	В	G		
G	R	G	R	G	R		

TYPE - 2

FIG. 5c

G	R	G	R	G	R		
В	G	В	G	В	G		
G	R	G	R	G	R		
В	G	В	G	В	G		
G	R	G	R	·G	R		
В	G	В	G	В	G		
						Г	
TYPF = 3							

FIG. 5d

_							
	G	В	G	В	G	В	
	R	G	R	G	R	G	
Γ	G	В	G	В	G	В	
	R	G	R	G	R	G	
Γ	G	В	G	В	G	В	
Γ	R	G	R	G	R	G	
Г							

TYPE - 4

TITI DIGITAL CAMERA

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APPLICATION SERIAL NO: 09/205,094







FIG. 6a

R	G	В	R	G	
В	R	G	В	R	
G	В	R	G	В	
R	G	В	R	G	
В	R	G	В	R	
					=

R	Ġ	В	R	G
8	R	G	В	R
G	В	R	G	В
R	G	В	R	G
В	R	G	В	R

FILTER ALIGNMENT DATA

$$X = 3$$

 $Y = 3$
0, 1, 2, 2, 0, 1, 1, 2, 0

FIG. 6b

R	G	В	R	G
R	G	В	R	G
R	G	В	R	G
R	G	В	R	G
R	G	В	R	G

			_		
R	G	B	R	G	
R	G	В	R	G	
R	G	В	R	G	
R	G	В	R	G	
R	G	В	R	G	

FILTER ALIGNMENT DATA

GITAL CAMERA

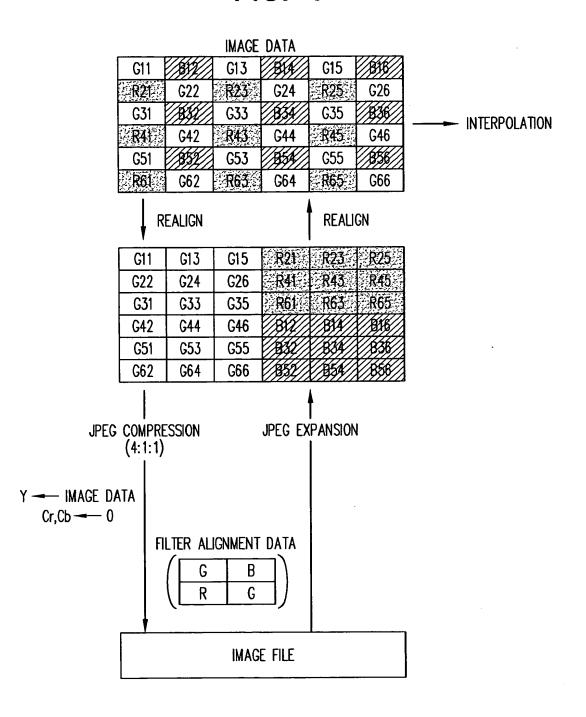
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FIG. 7



TITLE: SITAL CAMERA

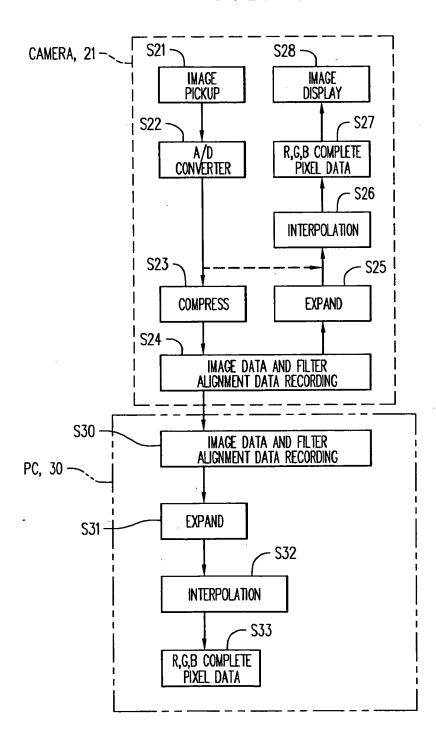
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FIG. 8



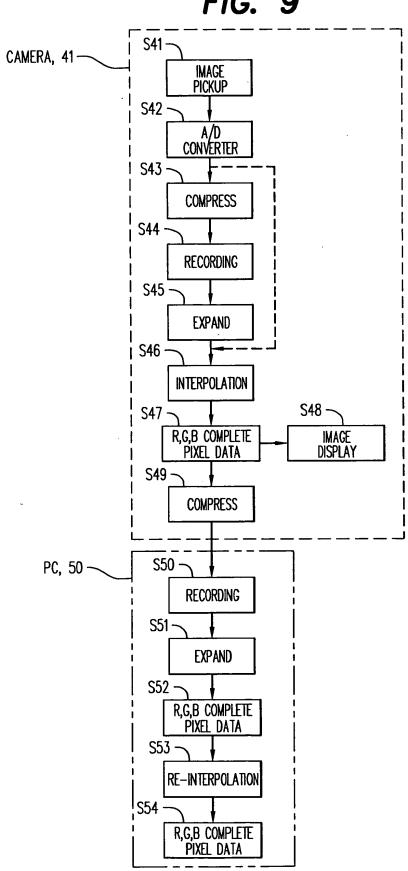
IGITAL CAMERA

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FIG. 9



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INVENTOR(S): HIROYUKI OKADA
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		_		·			FIG. 10 —	
G	G	G	G	G	G		G G G G G	G G G G G
G	G	G	G	G	G		G G G G G	G G G G G
G	G	G	G	G	G	_	C G C G G	G G G G G
G	G	G	G	G	G		G G G G G	G 6 G 6 G
G	G	G	G	G	G		G G G G G	S G G G G
G	G	G	G	G	G		G G G G G	G G G G G
В	В	В	В	В	В		B B B B B	B B B B B
В	В	В	В	В	В		B B B B B	B B B B B
В	В	В	В	В	В		8 8 8 8 8 B	8 B B B B
В	В	В	В	В	В		B B B B B	B B B B B
В	В	В	В	В	В		B B B B B	B B 8 8 B
В	В	В	В	В	В		B B B B B	B B B B B
R	R	R	R	R	R		R R R R R	R R R R R
R	R	R	R	R	R		RRRRRR	R R R R R
R	R	R	R	R	R	_	R R R R R	R R R R
R	R	R	R	R	R		RARRRR	RRRRR
R	R	R	R	R	R		R R R R R	R R R R R
R	R	R	R	R	R		R R R R R	R R R R R
cc)MPLI	ETE	PIXE	L DA	ATA		PIXEL DATA INCLUDING MISSING PIXELS	RE-INTERPOLATION

TE: DIGITAL CAMERA

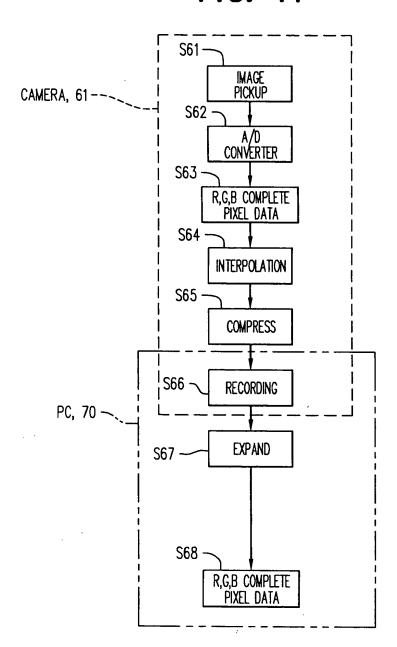
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FIG. 11 PRIOR ART



APPLICATION SERIAL NO: 09/205,094 **SHEET 12 of 12** \simeq \simeq α ∞ ≃ 8 В 8 8 8 \simeq R,G,B COMPLETE PIXEL DATA œ മ 9 <u>⊶</u> 8 ∝ 9 ပ ပ ပ ပ മ ပ ပ ပ ت ပ **EXPAND** IMAGE DATA FILE RECORDING PRIOR ART \simeq \simeq ~ ~ FIG. 12 \simeq \simeq 8 В α 2 R,G,B COMPLETE PIXEL DATA 2 S ပ 9 ပ 9 Ф ပ ပ 9 ပ ပ 8 ပ ပ 9 ပ ပ ပ ပ ပ ပ ပ ပ ပ ပ COLOR SEPARATION ۵. ٥. ٥. IMAGE DATA ۰. ٥. ~ ۵. <u>~</u>.

APPLN. FILING DATE: DECEMBER 3, 1998

DIGITAL CAMERA

INVENTOR(S): HIROYUKI OKADA